



**IR High Speed Dome Camera**

**PTZ-9636IR**

**User Manual**



Packing:

| Name                               | QTY |
|------------------------------------|-----|
| PTZ                                | 1   |
| Wall Bracket(include fixed Screws) | 1   |
| Holder                             | 1   |
| DC12V/5A power supply              | 1   |
| Screws                             | 4   |
| PM8*25 socket head screws          | 4   |
| User's manual                      | 1   |
| Warranty Card                      | 1   |
| Conformity of quality              | 1   |

**Description:** 1pc superpower LED IR light + 6 pcs LED Array IR lights.

Superpower LED IR light equipped with big or small lens (the big lens' minimum Angle is 5°) to secondary condense the light, this model can fully gather IR lights into small angle and emit to far distance, and the effect is excellent and night vision distance is up to 150 meters.

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# 1 Instruction

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This product can be widely used in intelligent building, bank security, urban roads, airport terminals and bus stations, and also are able to satisfy various demands from any square and activities occasion.

## 1.1 Safety Instructions

- Make sure to read the user's manual before using the product.
- Always confirm to national and local safety codes during installation.
- Only qualified and experienced person can carry on this installation.
- Use reliable tools, otherwise may lead to dangerous incidents.
- Make sure that the environmental conditions meet the installation requirements for this product.
- Please check the space and toughness of the site before installing. It should be able to bear 4 times the weight of the dome and its accessories.
- Please keep all the original dome package materials for future repacking and transporting.

## 1.2 Warnings

Do not install this speed dome in hazardous places where combustible or explosive materials are stored or used.

- Do not place the camera on shaking desk.
- Make sure no uncertain object or fluid substances get inside the unit.
- This speed dome runs on DC 12V, do not connect it to higher or lower voltage.
- Please check RS 485 cable.
- Do not turn power on before finishing installation.
- Do not disassemble any part of the items.
- Use soft towel to clean the down cover when necessary, do not use caustic detergent.
- To protect CCD, avoid facing the camera directly to the strong light.
- To prevent damage, do not drop the unit or subject to strong shock or vibration.

## 2 Features

### 2.1 Product Features

- CCD Sensor: 1/3" Sony Effio CCD Color 960H.
- Zoom Magnification: 36X Optical zoom.
- Day & Night function: The camera is configured to switch to the black and white mode automatically under low light conditions and at night.
- Various focus mode: Auto Focus / Manual Focus / Semi-Auto Focus.
- Max 360°/sec high speed Pan / Tilt motion.
- Automatic flip.
- Adaptive PELCO-P/D protocol.
- IR start illumination menu can be adjusted.
- Auto running memory against power outage.
- RTC function, call any functions at any time.
- Support 128 preset positions, and support lens preset.
- OSD menu, user friendly and easily operation.
- Compass function, proportional zoom and auto flip function.
- Built in double devices for lightning proof and surge proof.
- Adopt advanced stepper motor less heat, runs steady, no shaking.
- Support 4 groups cruise scan (27 presets/group), 4 group patterns, one scan, 360°continuous scan and 360°intermittent scan.
- IR lights automatically adjust the light intensity according to the zoom speed to reduce the dark angle and flashlight effect.
- The upper dome adopts 7 " aluminum alloy structure, better magnetic shield and heat radiation.
- The under part dome adopts full metal class points bin type design, fast heat dissipation and anti-mist, noninterference light source images and long life span IR light.

## 2.2 Specifications

|                  |                                                                                                                                                                                                                                                        |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Supply     | Output: DC12V $\pm$ 5%, 5A<br>Input: AC100 $\sim$ 240V, 50/60Hz                                                                                                                                                                                        |
| Max. Power       | IR off: 15W    IR on: 31W                                                                                                                                                                                                                              |
| Sync system      | Internal Sync                                                                                                                                                                                                                                          |
| Pan Speed        | 0.08 $^{\circ}$ $\sim$ 240 $^{\circ}$ /S                                                                                                                                                                                                               |
| Tilt Speed       | 0.08 $^{\circ}$ $\sim$ 240 $^{\circ}$ /S                                                                                                                                                                                                               |
| Pan Range        | 0 $^{\circ}$ $\sim$ 360 $^{\circ}$ (Continuous)                                                                                                                                                                                                        |
| Tilt Range       | 0 $^{\circ}$ $\sim$ 90 $^{\circ}$ (180 $^{\circ}$ auto flip)                                                                                                                                                                                           |
| Preset           | 128                                                                                                                                                                                                                                                    |
| Preset Accuracy  | $\leq \pm 0.1^{\circ}$                                                                                                                                                                                                                                 |
| Tour             | 4, 27 presets/tour                                                                                                                                                                                                                                     |
| Pattern          | 4                                                                                                                                                                                                                                                      |
| Zone             | 1                                                                                                                                                                                                                                                      |
| Protocol         | RS485                                                                                                                                                                                                                                                  |
| Communication    | PELCO-D/P auto detected                                                                                                                                                                                                                                |
| Baud Rate        | 2400bps、4800bps、9600bps、19200bps                                                                                                                                                                                                                       |
| Address          | 1-255                                                                                                                                                                                                                                                  |
| RTC              | Set any key at any time                                                                                                                                                                                                                                |
| IR Light switch  | A(Superpower LED): Default: 1 $\sim$ 5 times, open the near-distance lights; 6 $\sim$ 9 times, open the near-distance and middle-distance lights; after 10 times, turn off the near-distance lights, open the middle-distance and far-distance lights. |
| Work Temperature | Indoor: 0 $^{\circ}$ C $\sim$ +50 $^{\circ}$ C<br>Outdoor: -10 $^{\circ}$ C $\sim$ +50 $^{\circ}$ C                                                                                                                                                    |
| Work Humidity    | <90%                                                                                                                                                                                                                                                   |

## 3 Installation Preparations

---

### 3.1 Tool List

(The tools in the list will be used or not)

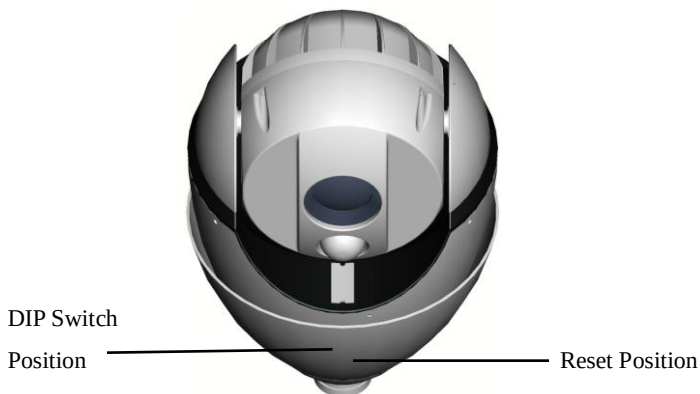
- |                         |                          |
|-------------------------|--------------------------|
| (1) Screws              | (2) Monkey wrench        |
| (3) Philips screwdriver | (4) Straight Screwdriver |
| (5) Wire stripper       | (6) Ladder               |
| (7) Electric drill      | (8) Socket head wrench   |
| (9) Hammer              | (10) Electric iron       |
| (11) BNC mail connector |                          |

### 3.2 Installation Preparation

- (1) Check the space and toughness of the site make sure that the environmental conditions meet the installation requirements for this product.
- (2) Please check the space and toughness of the site before installing. It should be able to bear 4 times the weight of the PTZ and its accessories.

### 3.3 DIP Switch Setup

- (1)Default: Pelco P/D auto detected, baud rate: 2400bpx, address: 1. Detach the upper housing and bottom cover, you can see DIP switch below.



## (2)Baud Rate Setup

Decoder Switch: 9~10 (1=ON, 0=OFF)

| Switch 9-10 setting |    | Baud Rate                               | Max transmission distance(M) |
|---------------------|----|-----------------------------------------|------------------------------|
| 9                   | 10 |                                         |                              |
| 0                   | 0  | 2400BPS                                 | 1800                         |
| 1                   | 0  | 4800BPS                                 | 1200                         |
| 0                   | 1  | 9600BPS                                 | 800                          |
| 1                   | 1  | Auto detected 2400, 4800, 9600,19200BPS | 600-1800                     |

**Notice: Please restart the camera after setting switch**

(3) When the DIP Switch 9th and 10th are ON, the PTZ can automatically detected the baud rate 2400, 4800, 9600, 19200.

## 4 Setup of the OSD Menu

---

### 4.1 Display Boot-UP Info.

Before control the PTZ, check the protocol, baud rate, address and RS485 data cable. Default protocol: PELCO-D, address: 1, baud rate: 2400.

```
PROTOCOL: PELCO P D
BAUD RATE: 2400BPS
CAMERA ID: 001
CAMERA S/N: 0000000001
MODEL:  -----
VERSION: V1.02
FAN SPEED: 6500RPM
STARTING... ....
```

When starting, the PTZ will check the below information:

Level self-check: Success  
Vertical self-check: Success  
Camera type: SONY  
  
Success

When finished, the above information will disappear and the dome is under the control status.

**Notice: When the PTZ passed the level and vertical self-check, the screen show success, if not, error, and please contact our technician**

## **4.2 Enter the OSD Menu**

In the condition of standby status, calling preset 95 enters into the main menu. Using the direction key to select item or start the configuration. Right key for enter, left key for exit the current setting.

The Main menu as shows:

SYSTEM  
LENS  
CAMERA  
PAN/TILT  
AUTO RUNNING  
PRIVACY MASK  
ALARM  
LANGUAGE  
IR SET  
EXIT

Setting preset 95 can exit the OSD Menu.

## 4.3 SYSTEM

<Main Menu> → <SYSTEM>

SITE INFO

DISPLAY SETUP

BOOTUP SCREEN

PASSWORD

SET DEFAULT

SYSTEM REBOOT

RTC TIME SET

RTC TIMER RUNNING

BACK

**System info** includes following settings.

- < SITE INFO>: User can setup the dome's ID, site name and broadcast address.
- < DISPLAY SETUP >: User can setup to display the Screen information or not.
- <DISPLAY BOOT-UP INFO>: User can setup to display system information when booting.
- <PASSWORD >: User can setup the password or change menu password.
- <SET DEFAULT>: User can setup restore factory default settings, but the preset positions will be retained.
- <SYSTEM REBOOT>: After change dome ID or adjust deviation between two preset positions, user has to reboot the system to activate.
- <RTC TIME SET>: Set the present date and time.
- <RTC TIMER RUNNING>: At a specified time to run the defined function.

### 4.3.1 SITE INFO

<Main Menu> → <SYSTEM> → <SITE INFO >

|                       |      |
|-----------------------|------|
| NAME: GXAAF DOME: 001 |      |
| DOVE ID OPT:          | SOFT |
| SOFTWARE ID:          | 001  |
| HARDWARE ID:          | 000  |
| BROADCAST ID:         | 255  |
| BACK                  |      |
| EXIT                  |      |

- <NAME>: is the title of the dome. Assigning a name to a dome helps user to remember which dome it is. Max 16 digits Setting with number from 0~9 and letter from A~Z. Move the cursor to <SITE ID> and then move the joystick right to enter dome ID setting.
- <DOVE ID OPT>: Setting the address to control the dome, user can choose from SOFT and HARD
  - SOFT: when choose this; the SOFTWARE ID is effective while the HARDWARE ID is ineffective.
  - HARD: when choose this; the HARDWARE ID is effective while the SOFTWARE ID is ineffective.
- <SOFTWARE ID>: shows the current software ID, user can modify and choose from 001~254
- <HARDWARE ID>: shows the current physical ID, it is decided by the DIP Switch, and user cannot modify.
- <BROADCAST ID>: shows the current ID, The ID functions the same as dome's <SOFTWARE/ HARDWARE ID>, The dome works when receives any of those ID. The dome's broadcast ID is 255, user cannot modify.

- <BACK>: return to upper menu.
- <EXIT>: exit the menu

#### 4.3.2 DISPLAY SET UP

< Main Menu>→<SYSTEM>→<DISPLAY SETUP>

|                |     |
|----------------|-----|
| SITE NAME:     | OFF |
| PRESET TITLE:  | OFF |
| PATTERN NAME:  | OFF |
| ZOOM:          | OFF |
| ORIENTATATION: | OFF |
| TEMPRETURE:    | OFF |
| ZONE NAME:     | OFF |
| RTC TIME:      | OFF |
| BACK           |     |
| EXIT           |     |

- <SITE NAME>: Choose to display site name or not.
- <PRESET TITLE>: Choose to display preset position or not.
- <PATTERN NAME>: Choose to display pattern name or not
- <ZOOM>: Choose to display the current zoom or not.
- <ORIENTATION>: Choose to display the current lens direction or not.
- <TEMPRETURE>: Choose to display the current temperature or not.
- <ZONE NAME>: Choose to display the current zone name or not.
- <RTC TIME>: Choose to display the date and time or not.

### 4.3.3 DISPLAY BOOT-UP INFO

<Main Menu>→<SYSTEM>→<DISPLAY BOOT-UP INFO>

PROTOCOL: PELCO P D  
BAUD RATE: 2400BPS  
CAMERA ID: 001  
CAMERA S/N: 0000000001  
MODEL: -----  
VERSION: V1.02  
FAN SPEED: 6000RPM  
CALL PRESET 1 TO BACK

Enter into Boot-up info displays to check current setup, call preset 1 to return to upper menu.

### 4.3.4 PASSWORD

<Main Menu>→<SYSTEM>→<PASSWORD>

INPUT PASSWORD: \*\*\*\*\*  
CONFIRM: \*\*\*\*\*  
PSWD PROTECTION: OFF  
BACK  
EXIT

- <INPUT PASSWORD > (Factory default is 123456):

Move joystick to enter submenu, then input the old password. If you forget the password after changing, please contact the supplier for the master password.

The cursor will flash if the old password is correct, and then input the new password. If the old Password input is not correct, you will not be able to change the password.

- <CONFIRM>:

Re-input the new password and confirm. If the input is not the same as the first time input, the system will remain the old password.

- <PSWD PROTECTION>:

Switch on / off the password protection. When it is <On> user need to enter password to access main menu or save preset through keyboard.

- <BACK>: return to upper menu.
- <EXIT>: exit the menu

### 4.3.5 SET DEFAULT

<Main Menu>→<SYSTEM>→<SET DEFAULT>

Select <SET DEFAULT> to restore factory default setting.

### 4.3.6 SYSTEM REBOOT

<Main Menu>→<SYSTEM>→<SYSTEM REBOOT>

Select <SYSTEM REBOOT> to reboot the dome.

### 4.3.7 RTC TIME SET

<Main Menu>→<SYSTEM>→<RTC TIME SET>

|               |          |
|---------------|----------|
| DATE Y/M/D:   | 00 00 00 |
| TIME H: M: S: | 00 00 00 |
| BACK          |          |
| EXIT          |          |

Use left and right keys to move the cursor to desired item, use up and down keys to change the current cursor value.

**Notice:** The default date is 2000 to 2110, and the year beyond is unable to set.

#### 4.3.8 RTC RIME RUNNING

<Main Menu>→<SYSTEM>→<RTC TIMER RUNNING>

|               |            |
|---------------|------------|
| DATE Y/M/D:   | 00 00 00   |
| TIME H: M: S: | 00 00 00   |
| ACTION:       | PRESET 001 |
| BACK          |            |
| EXIT          |            |

- <DATE and TIME>: Setup time running time (24-hour)
- <ACTION>: Choose one function from <PRESET>, <ZONE>, <TOUR>, <PATTERN> to run.
- <BACK>: Back to the upper menu.
- <EXIT>: Exit the current menu.

#### 4.4 LENS

<Main Menu>→<LENS>

|                 |      |
|-----------------|------|
| ZOOM SPEED:     | HIGH |
| DIGITAL ZOOM:   | OFF  |
| JOYSTICK AF/AI: | AI   |
| AF RESUME TIME: | 005  |
| AI RESUME TIME: | 005  |
| DAY/NIGHT:      | AUTO |
| CAMERA P/N:     | PAL  |
| BACK            |      |
| EXIT            |      |

- <ZOOM SPEED>: Set the zoom speed level to HIGH or LOW
- <DIGITAL ZOOM>: Turn On/Off the Digital Zoom.
- <JOYSTICK AF/AI>: Set up Auto Focus or Auto Iris

- <BOTH>: Joystick movement triggers both auto focus and auto iris
- <FOCUS>: Joystick movement triggers auto focus only
- <IRIS>: Joystick movement triggers auto iris only.
- <NONE>: Joystick movement triggers none of the functions. .
- <AF RESUME TIME>: This item sets the time to restore auto focus after focus is manually changed. The default setting is 005, options are:  
[Off] Never restore auto focus after switch to manual.  
[005-255]The dome will start auto focus that number of seconds after user manually adjusts focus.
- <AI RESUME TIME>: This item sets the time to restore auto iris after iris is manually changed. The default setting is 005 seconds, options are:  
[Off]: Never restore auto iris after switch to manual.  
[005-255]: The dome will start auto iris that number of seconds after user manually adjust iris.

<DAY/NIGHT> (IR Auto Change function need camera support):

Set the dome color/ black & white mode. Color mode is suitable to work in daytime because it needs higher illumination.

Light sensitivity of black & white mode is much higher. It is suitable to work at night without illumination but the video is black and white.

**NOTE: This setting is only for the day/night camera**

There are 4 options:

- <AUTO>: The dome will automatically change modes according to the environment illumination.
- <COLOR>: The dome is always in color mode.
- <BLACK& WHITE>: The dome is always in Black and White mode.
- <IR AUTO CHANGE>: The dome is controlled by the IR lights, when the IR lights opened, the mode auto change to Black and White. Should need camera supported.

- <CAMERA P/N>:

Show the current camera P/N (PAL/ NTSC), The PTZ can automatically detected some of the camera Signal mode, if not, please set manually.

## 4.5 CAMERA

<Main Menu>→<CAMERA>

|                                                 |
|-------------------------------------------------|
| WHITE BALANCE: AUTO<br>BLC MODE<br>BACK<br>EXIT |
|-------------------------------------------------|

### 4.5.1 WHITE BALANCE

- <WHITE BALANCE>: is normally compensated for by the automatic white balance gain control. In some lighting conditions, user may want to manually adjust the red and blue settings for optimal viewing. There are 6 options (some cameras just support part of modes below):
- [AUTO]: Auto White Balance (default setting).
- [MANUAL]: Manually set the red and blue values, setup from 000 to 255.
- [ATW]: Auto track White Balance.
- [OPW]: Once touch White Balance
- [OUTDOOR]: Suitable for outdoor use.
- [INDOOR]: Suitable for indoor use.

### 4.5.2 BLC MODE (Need support by camera)

If the backlight is bright, the objects in the center of the picture may appear dark. The dome can auto adjust the brightness of the whole image according to the brightness of the center point. Thus backlight compensation can increase the brightness of the objects in the center of the picture.

Select<BLC SET>, and choose the right key to access the sub-menu as below

|          |     |
|----------|-----|
| BLC QTY: | 000 |
| WDR:     | OFF |
| BACK     |     |
| EXIT     |     |

- <BLC QTY>: Adjust the data of the BLC, choose from 000-255.
- <WDR>:ON and OFF the camera's WDR function.

## 4.6 PAN/TILT

<Main Menu>→<PAN/TILT>

|                   |     |
|-------------------|-----|
| AUTO STOP TIME:   | OFF |
| SPEED AMPLIFY:    | 032 |
| PROPORTIONAL P/T: | ON  |
| SET NORTH         |     |
| BACK              |     |
| EXIT              |     |

- <AUTO STOP TIME>:

For some particular protocols, the dome will not stop moving even there is no operation on CCTV Tester. This menu sets the time after which the dome receives last control command.

- [Off]: Disable this function
- [001~255]: The time (second) that dome will stop moving without receiving any commands.

- <SPEED AMPLIFY>:

Some protocols' controlling speed is much lower, set <SPEED AMPLIFY> to accelerate domes movement. Options are as below:

- [Off]: Disable this function
- [01×~ 32×]: Speed amplify from 01~32x

**Notice: The above two functions is not available at present**

- <PROPORTIONAL P/T>:

The dome moves at a speed of certain degree per second. Objects on screen move much faster in wide scope than in telescope. Even too faster in some case. This function decreases the dome movement speed while zooming in.

- <SET NORTH>:

User can set orientation by using joystick to position north.

When select <SET NORTH>, following menu will pop-up.

CALL PRESET 1 TO RETURN  
CONFIRM. . . . .

Adjust the lens to desired position and call preset 1 to confirm and return.

- <BACK>: Back to upper menu.

#### **4.7 AUTO RUNNING**

**<Main Menu>→<AUTO RUNNING>**

PRESET  
TOUR  
PATTERN  
360° SCAN  
ZONE  
PARK TIME: 0S  
PARK ACTION: OFF  
BACK  
EXIT

#### 4.7.1 PRESET

<Main Menu>→<AUTO RUNNING>→<PRESET>

PRESET NUMBER: 001  
TITLE: PRESET 001  
SET CURRNET  
REMOVE CURRENT  
BACK  
EXIT

In this function, the value of pan/tilt speed and camera parameters could be stored in the preset so that you can call them when needed. 128 presets can be set. It could also setup by shortcuts of control system.

- <PRESET NUMBER>

Display current preset number, the value ranges from 001to 064 (Except preset 33 and 34) and 101 to 164

**Note: As the number 33/34 preset has other functions in PELCO protocol, so user could not set number 33 and 34 preset.**

- <TITLE>

To set current preset title.16-bit can be set by the number 0 to 9 and the letters A-Z of any combination.

- <SET CURRENT>

Select this item to set the preset position and zoom. The following menu will pop-up when < Set Current> is selected.

CALL PRESET 1 TO BACK  
CONFIRM ... ..

Move to the desired position and zoom to a suitable level, call preset 1 to save the current preset and return.

- < REMOVE CURRENT>: Delete the preset with the number and title display above.

#### 4.7.2 TOUR

<Main Menu> → <AUTO RUNNING> → <TOUR>

TOUR NUMBER: 001  
 DWELL: 003  
 EDIT  
 RUN  
 BACK  
 EXIT

The dome camera will run repeatedly as the given sequence of presets at certain dwell time by one command. Max. 4 tours available (27preset/tour).

- <TOUR NUMBER>: Set current tour number from 001~004.
- <DWELL>: Set the default dwell time from 001~255 seconds for each preset. User can still set independent dwell time for each preset in editing preset mode.
- <EDIT>: Edit presets and corresponding dwell time in a tour as follows.

PRESET-DWELL  
 001-003 002-003 003-003  
 004-003 005-007 006-003  
 007-004 008-003 000-003  
 000-003 000-003 000-003  
 000-003 000-003 000-003  
 SAVE AND BACK  
 CANCEL AND BACK

There are three group numbers, the left side is preset number, the right side is dwell time; tour from left to right, up to down in the order to run preset; when the preset number is set to <000>, the current preset is skipped;

- <SAVE AND BACK>: Save the tour and back.
- <CANCEL AND BACK>: Quit without saving and then exit to the upper menu.
- <RUN>: Run the current tour repeatedly before receiving a new control command.
- <BACK>: Back to upper menu.

#### 4.7.3 PATTERN

<Main Menu> → <AUTO RUNNING> → <PATTERN>

|                                                      |
|------------------------------------------------------|
| PATTERN NUMBER: 001<br>RECORD<br>RUN<br>BACK<br>EXIT |
|------------------------------------------------------|

There are max 4 patterns, and the dome camera can record all regular operation in 3 minutes at least. The command will drive the speed dome runs as given route repeatedly.

- <PATTERN NUMBER>: Set current pattern number from 001~004.
- <RECORD>: Edit the current pattern's running route and record all operation in 3 minutes at least.

CALL PRESET 1 TO BACK  
 CONFIRM... ..  
 180S  
 000%  
 RECORD.....

- <180S>: Remaining record time.
- <000%>: The recording space. The record time will decrease while the space increases. User can call preset 1 to back to the upper menu.

**Notice: Any of the time and space is finished; even not call preset 1, the recording is end and exit and saved the recording.**

- <RUN>: Run current pattern repeatedly until other command received.

#### 4.7.4 360° SCAN

<Main Menu> → <AUTO RUNNING> → <360° scan>

360° SCAN DWELL: 0S  
 PAN SPEED: HIGH  
 RUN  
 BACK  
 EXIT

#### <360° SCAN DWELL>:

0S: 360 continuous scan

5S: 90 intermittent scan, then dwell on 5s, the speed dome will run as the given route repeatedly before receiving new command.

10S: 90 intermittent scan, then dwell on 10s, the speed dome will run as the given route repeatedly before receiving new command.

**Special note: 360° scan stay time and preset cruise stay time is sharing, PTZ running by the new setting time. For instance, call 360° scan stay time is 5 seconds, after then, recall the preset cruise stay time is 10 seconds, then when the user recalls 360° scan, the stay time become 10 seconds.**

- <PAN SPEED>

**High:** 20/S

**Middle:** 15/S

**Low:** 6/S

**Auto:** Does the camera's proportional P/T speed.

- <RUN>

The speed dome will run as the dwell time and speed repeatedly before received new command.

#### 4.7.5 ZONE

<Main Menu> → <AUTO RUNNING> → <ZONE>

|                  |
|------------------|
| TITLE: ABC123    |
| LEFT LIMIT: 25   |
| RIGHT LIMIT: 148 |
| PAN SPEED: HIGH  |
| REMOVE CURRENT   |
| RUN              |
| BACK             |
| EXIT             |

- <TITLE>: To set current zone number, 16-bit can be set up by the number 0-9 and the letters A-Z of any combination
- <LEFT LIMIT>: Set the right edge of region <A>

CALL PRESET 1 TO BACK  
CONFIRM. . . . .

Move the camera left limit position to confirm and return.

- <RIGHT LIMIT>: Set the right edge of region (B)

CALL PRESET 1 TO BACK  
CONFIRM. . . . .

- <PAN SPEED>

**High:** 20/S

**Middle:** 15/S

**Low:** 6/S

**Auto:** Does the camera's proportional P/T speed.

- <REMOVE CURRENT>: Delete current zone
- <RUN>: Start current zone scan repeatedly before receiving new command.

**Note:**

**1. PTZ default tour scan route is the left limit clockwise direction, if user finds out the route is wrong, could call number 82 preset again, when the tour scan run to the critical point, PTZ will scan as reverse direction.**

**2. 360° scan pan speed and preset cruise pan speed is sharing, PTZ running by the new setting speed. For instance, call 360° scan pan speed is middle, after then, recall the preset cruise pan speed is high, and when the user recalls 360° scan, the pan speed becomes high.**

#### **4.7.6 <PARK TIME>**

The camera will run certain function automatically if there is any operation for a longtime.

**0S:** PARK TIME OFF

**60S:** PARK TIME ON, 60S

**120S:** PARK TIME ON, 120S

#### **4.7.7 <RUNNING TYPE>**

Set the run type after the idle time, users can choose Preset, Tour, Pattern, or Auto.

**Note: Time running available only<IDLE TIME> and <RUNNING TYPE> are both ON state.**

### **4.8 PRIVACY MASK (Need support by camera)**

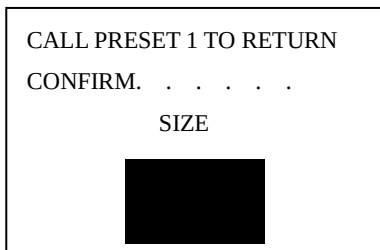
**<Main Menu> → <PRIVACY MASK>**

MASK NUMBER: 001  
PRIVACY MASK SETUP  
REMOVE CURRENT MASK  
REMOVE ALL MASK  
BACK  
EXIT

- **<MASK NUMBER>:** Set and edit the current mask zone number from 001-008
- **<PRIVACY MASK SETUP>:** Enter privacy mask setup to edit and confirm.

CALL PRESET 1 TO RETURN  
CONFIRM.....

Call preset 1 to confirm your setup and then you will see below sub-menu:

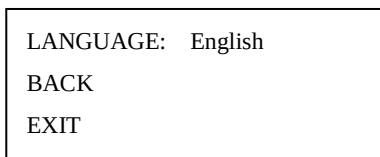


Using up, down, left and right key to adjust the size of the mask, then call preset 1 to confirm and return.

- <REMOVE CURRENT MASK>: Remove current mask, then the black lump will disappear.
- <REMOVE ALL MASK>: Remove all masks, then all the black lump will disappear.

#### 4.10 LANGUAGE

<Main Menu> → <LANGUAGE >



The dome camera supports OSD Menu with Chinese/ English. Enter into the <Language>, move the cursor up and down to choose language, press the left direction key to confirm.

#### 4.11 ZOOM SET

<Main Menu> → <IR ZOOM SET>

```

IR MODE: AUTO
IR ZOOM SET 1: 006
IR ZOOM SET 2: 010
PRESENT LUX: 000
IR START SET: 006
IR CLOSE SET: 012
BACK
EXIT

```

- <IR MODE >: AUTO/OPEN/CLOSE

<AUTO>: Default. When the detected signal value from the IR sensitive below the value of IR Start, the IR dome automatically open the IR lights.

<OPEN>: Open the IR lights forcibly (No influence from the detected signal value).

<CLOSE>: Close the IR lights forcibly (No influence from the detected signal value).

**Notice: The function only effective in <LENS> → <DAY/NIGHT> → <IR CHANGE> mode.**

- <IR ZOOM SET 1>: 006 (The second section IR Zoom value) (Range: 0~the maximum optical zoom)
- <IR ZOOM SET 2>: 010 (The third section IR Zoom value) (Range: 0~the maximum optical zoom)
- <PRESENT LUX>: The illumination value (Unit: Lux) User can not edit
- <IR START SET>: 006(Default Open IR light illumination value), Range: 0-8 Unit:Lux
- <IR CLOSE SET>: 012 (Close IR light illumination value) Range: 12-20 Unit: Lux

## APPENDIX I DIP SWITCH SETTING

DIP Switch consists of 8 numbers from 1-8, use 8421 binary cod, max 255 address. When the switch is in the “ON” position, the number from 1-8 corresponding to 1, 2, 4, 8, 32, 64, 128. For example, if you set 1, 3, 5, 7 switch to the “ON” position, the corresponding address will be  $1+4+16+64=85$ , please refer to the blow details.

**Sheet 1 (1=ON, 0=OFF)**

| DIP switch<br>Address | K1 ID Switch(number 1-<br>number 8) | DIP switch<br>Address | K1 ID Switch(number 1-<br>number 8) |
|-----------------------|-------------------------------------|-----------------------|-------------------------------------|
|                       | 1 2 3 4 5 6 7 8                     |                       | 1 2 3 4 5 6 7 8                     |
| 1                     | 1 0 0 0 0 0 0 0                     | 2                     | 0 1 0 0 0 0 0 0                     |
| 3                     | 1 1 0 0 0 0 0 0                     | 4                     | 0 0 1 0 0 0 0 0                     |
| 5                     | 1 0 1 0 0 0 0 0                     | 6                     | 0 1 1 0 0 0 0 0                     |
| 7                     | 1 1 1 0 0 0 0 0                     | 8                     | 0 0 0 1 0 0 0 0                     |
| 9                     | 1 0 0 1 0 0 0 0                     | 10                    | 0 1 0 1 0 0 0 0                     |
| 11                    | 1 1 0 1 0 0 0 0                     | 12                    | 0 0 1 1 0 0 0 0                     |
| 13                    | 1 0 1 1 0 0 0 0                     | 14                    | 0 1 1 1 0 0 0 0                     |
| 15                    | 1 1 1 1 0 0 0 0                     | 16                    | 0 0 0 0 1 0 0 0                     |
| 17                    | 1 0 0 0 1 0 0 0                     | 18                    | 0 1 0 0 1 0 0 0                     |
| 19                    | 1 1 0 0 1 0 0 0                     | 20                    | 0 0 1 0 1 0 0 0                     |
| 21                    | 1 0 1 0 1 0 0 0                     | 22                    | 0 1 1 0 1 0 0 0                     |
| 23                    | 1 1 1 0 1 0 0 0                     | 24                    | 0 0 0 1 1 0 0 0                     |
| 25                    | 1 0 0 1 1 0 0 0                     | 26                    | 0 1 0 1 1 0 0 0                     |
| 27                    | 1 1 0 1 1 0 0 0                     | 28                    | 0 0 1 1 1 0 0 0                     |
| 29                    | 1 0 1 1 1 0 0 0                     | 30                    | 0 1 1 1 1 0 0 0                     |
| 31                    | 1 1 1 1 1 0 0 0                     | 32                    | 0 0 0 0 0 1 0 0                     |
| 33                    | 1 0 0 0 0 1 0 0                     | 34                    | 0 1 0 0 0 1 0 0                     |

|    |                 |    |                 |
|----|-----------------|----|-----------------|
| 35 | 1 1 0 0 0 1 0 0 | 36 | 0 0 1 0 0 1 0 0 |
| 37 | 1 0 1 0 0 1 0 0 | 38 | 0 1 1 0 0 1 0 0 |
| 39 | 1 1 1 0 0 1 0 0 | 40 | 0 0 0 1 0 1 0 0 |
| 41 | 1 0 0 1 0 1 0 0 | 42 | 0 1 0 1 0 1 0 0 |
| 43 | 1 1 0 1 0 1 0 0 | 44 | 0 0 1 1 0 1 0 0 |
| 45 | 1 0 1 1 0 1 0 0 | 46 | 0 1 1 1 0 1 0 0 |
| 47 | 1 1 1 1 0 1 0 0 | 48 | 0 0 0 0 1 1 0 0 |
| 49 | 1 0 0 0 1 1 0 0 | 50 | 0 1 0 0 1 1 0 0 |
| 51 | 1 1 0 0 1 1 0 0 | 52 | 0 0 1 0 1 1 0 0 |
| 53 | 1 0 1 0 1 1 0 0 | 54 | 0 1 1 0 1 1 0 0 |
| 55 | 1 1 1 0 1 1 0 0 | 56 | 0 0 0 1 1 1 0 0 |
| 57 | 1 0 0 1 1 1 0 0 | 58 | 0 1 0 1 1 1 0 0 |
| 59 | 1 1 0 1 1 1 0 0 | 60 | 0 0 1 1 1 1 0 0 |
| 61 | 1 0 1 1 1 1 0 0 | 62 | 0 1 1 1 1 1 0 0 |
| 63 | 1 1 1 1 1 1 0 0 | 64 | 0 0 0 0 0 0 1 0 |
| 65 | 1 0 0 0 0 0 1 0 | 66 | 0 1 0 0 0 0 1 0 |
| 67 | 1 1 0 0 0 0 1 0 | 68 | 0 0 1 0 0 0 1 0 |
| 69 | 1 0 1 0 0 0 1 0 | 70 | 0 1 1 0 0 0 1 0 |
| 71 | 1 1 1 0 0 0 1 0 | 72 | 0 0 0 1 0 0 1 0 |
| 73 | 1 0 0 1 0 0 1 0 | 74 | 0 1 0 1 0 0 1 0 |
| 75 | 1 1 0 1 0 0 1 0 | 76 | 0 0 1 1 0 0 1 0 |
| 77 | 1 0 1 1 0 0 1 0 | 78 | 0 1 1 1 0 0 1 0 |
| 79 | 1 1 1 1 0 0 1 0 | 95 | 1 1 1 1 1 0 1 0 |
| 81 | 1 0 0 0 1 0 1 0 | 82 | 0 1 0 0 1 0 1 0 |
| 83 | 1 1 0 0 1 0 1 0 | 84 | 0 0 1 0 1 0 1 0 |
| 85 | 1 0 1 0 1 0 1 0 | 86 | 0 1 1 0 1 0 1 0 |
| 87 | 1 1 1 0 1 0 1 0 | 88 | 0 0 0 1 1 0 1 0 |

|     |                 |     |                 |
|-----|-----------------|-----|-----------------|
| 89  | 1 0 0 1 1 0 1 0 | 90  | 0 1 0 1 1 0 1 0 |
| 91  | 0 0 1 1 1 0 1 0 | 92  | 0 0 1 1 1 0 1 0 |
| 93  | 1 0 1 1 1 0 1 0 | 94  | 0 1 1 1 1 0 1 0 |
| 95  | 1 1 1 1 1 0 1 0 | 96  | 0 0 0 0 0 1 1 0 |
| 97  | 1 0 0 0 0 1 1 0 | 98  | 0 1 0 0 0 1 1 0 |
| 99  | 1 1 0 0 0 1 1 0 | 100 | 0 0 1 0 0 1 1 0 |
| 101 | 1 0 1 0 0 1 1 0 | 102 | 0 1 1 0 0 1 1 0 |
| 103 | 1 1 1 0 0 1 1 0 | 104 | 0 0 0 1 0 1 1 0 |
| 105 | 1 0 0 1 0 1 1 0 | 106 | 0 1 0 1 0 1 1 0 |
| 107 | 1 1 0 1 0 1 1 0 | 108 | 0 0 1 1 0 1 1 0 |
| 109 | 1 0 1 1 0 1 1 0 | 110 | 0 1 1 1 0 1 1 0 |
| 111 | 1 1 1 1 0 1 1 0 | 112 | 0 0 0 0 1 1 1 0 |
| 113 | 1 0 0 0 1 1 1 0 | 114 | 0 1 0 0 1 1 1 0 |
| 115 | 1 1 0 0 1 1 1 0 | 116 | 0 0 1 0 1 1 1 0 |
| 117 | 1 0 1 0 1 1 1 0 | 118 | 0 1 1 0 1 1 1 0 |
| 119 | 1 1 1 0 1 1 1 0 | 120 | 0 0 0 1 1 1 1 0 |
| 121 | 1 0 0 1 1 1 1 0 | 122 | 0 1 0 1 1 1 1 0 |
| 123 | 1 1 0 1 1 1 1 0 | 124 | 0 0 1 1 1 1 1 0 |
| 125 | 1 0 1 1 1 1 1 0 | 126 | 0 1 1 1 1 1 1 0 |
| 127 | 1 1 1 1 1 1 1 0 | 128 | 0 0 0 0 0 0 0 1 |
| 129 | 1 0 0 0 0 0 0 1 | 130 | 0 1 0 0 0 0 0 1 |
| 131 | 1 1 0 0 0 0 0 1 | 132 | 0 0 1 0 0 0 0 1 |
| 133 | 1 0 1 0 0 0 0 1 | 134 | 0 1 1 0 0 0 0 1 |
| 135 | 1 1 1 0 0 0 0 1 | 136 | 0 0 0 1 0 0 0 1 |
| 137 | 1 0 0 1 0 0 0 1 | 138 | 0 1 0 1 0 0 0 1 |
| 139 | 1 1 0 1 0 0 0 1 | 140 | 0 0 1 1 0 0 0 1 |
| 141 | 1 0 1 1 0 0 0 1 | 142 | 0 1 1 1 0 0 0 1 |

|     |                 |     |                 |
|-----|-----------------|-----|-----------------|
| 143 | 1 1 1 1 0 0 0 1 | 144 | 0 0 0 0 1 0 0 1 |
| 145 | 1 0 0 0 1 0 0 1 | 146 | 0 1 0 0 1 0 0 1 |
| 147 | 1 1 0 0 1 0 0 1 | 148 | 0 0 1 0 1 0 0 1 |
| 149 | 1 0 1 0 1 0 0 1 | 150 | 0 1 1 0 1 0 0 1 |
| 151 | 1 1 1 0 1 0 0 1 | 152 | 0 0 0 1 1 0 0 1 |
| 153 | 1 0 0 1 1 0 0 1 | 154 | 0 1 0 1 1 0 0 1 |
| 155 | 1 1 0 1 1 0 0 1 | 156 | 0 0 1 1 1 0 0 1 |
| 157 | 1 0 1 1 1 0 0 1 | 158 | 0 1 1 1 1 0 0 1 |
| 159 | 1 1 1 1 1 0 0 1 | 160 | 0 0 0 0 0 1 0 1 |
| 161 | 1 0 0 0 0 1 0 1 | 162 | 0 1 0 0 0 1 0 1 |
| 163 | 1 1 0 0 0 1 0 1 | 164 | 0 0 1 0 0 1 0 1 |
| 165 | 1 0 1 0 0 1 0 1 | 166 | 0 1 1 0 0 1 0 1 |
| 167 | 1 1 1 0 0 1 0 1 | 168 | 0 0 0 1 0 1 0 1 |
| 169 | 1 0 0 1 0 1 0 1 | 170 | 0 1 0 1 0 1 0 1 |
| 171 | 1 1 0 1 0 1 0 1 | 172 | 0 0 1 1 0 1 0 1 |
| 173 | 1 0 1 1 0 1 0 1 | 174 | 0 1 1 1 0 1 0 1 |
| 175 | 1 1 1 1 0 1 0 1 | 176 | 0 0 0 0 1 1 0 1 |
| 177 | 1 0 0 0 1 1 0 1 | 178 | 0 1 0 0 1 1 0 1 |
| 179 | 1 1 0 0 1 1 0 1 | 180 | 0 0 1 0 1 1 0 1 |
| 181 | 1 0 1 0 1 1 0 1 | 182 | 0 1 1 0 1 1 0 1 |
| 183 | 1 1 1 0 1 1 0 1 | 184 | 0 0 0 1 1 1 0 1 |
| 185 | 1 0 0 1 1 1 0 1 | 186 | 0 1 0 1 1 1 0 1 |
| 187 | 1 1 0 1 1 1 0 1 | 188 | 0 0 1 1 1 1 0 1 |
| 189 | 1 0 1 1 1 1 0 1 | 190 | 0 1 1 1 1 1 0 1 |
| 191 | 1 1 1 1 1 1 0 1 | 192 | 0 0 0 0 0 0 1 1 |
| 193 | 1 0 0 0 0 0 1 1 | 194 | 0 1 0 0 0 0 1 1 |
| 195 | 1 1 0 0 0 0 1 1 | 196 | 0 0 1 0 0 0 1 1 |

|     |                 |     |                 |
|-----|-----------------|-----|-----------------|
| 197 | 1 0 1 0 0 0 1 1 | 198 | 0 1 1 0 0 0 1 1 |
| 199 | 1 1 1 0 0 0 1 1 | 200 | 0 0 0 1 0 0 1 1 |
| 201 | 1 0 0 1 0 0 1 1 | 202 | 0 1 0 1 0 0 1 1 |
| 203 | 1 1 0 1 0 0 1 1 | 204 | 0 0 1 1 0 0 1 1 |
| 205 | 1 0 1 1 0 0 1 1 | 206 | 0 1 1 1 0 0 1 1 |
| 207 | 1 1 1 1 0 0 1 1 | 208 | 0 0 0 0 1 0 1 1 |
| 209 | 1 0 0 0 1 0 1 1 | 210 | 0 1 0 0 1 0 1 1 |
| 211 | 1 1 0 0 1 0 1 1 | 212 | 0 0 1 0 1 0 1 1 |
| 213 | 1 0 1 0 1 0 1 1 | 214 | 0 1 1 0 1 0 1 1 |
| 215 | 1 1 1 0 1 0 1 1 | 216 | 0 0 0 1 1 0 1 1 |
| 217 | 1 0 0 1 1 0 1 1 | 218 | 0 1 0 1 1 0 1 1 |
| 219 | 1 1 0 1 1 0 1 1 | 220 | 0 0 1 1 1 0 1 1 |
| 221 | 1 0 1 1 1 0 1 1 | 222 | 0 1 1 1 1 0 1 1 |
| 223 | 1 1 1 1 1 0 1 1 | 224 | 0 0 0 0 0 1 1 1 |
| 225 | 1 0 0 0 0 1 1 1 | 226 | 0 1 0 0 0 1 1 1 |
| 227 | 1 1 0 0 0 1 1 1 | 228 | 0 0 1 0 0 1 1 1 |
| 229 | 1 0 1 0 0 1 1 1 | 230 | 0 1 1 0 0 1 1 1 |
| 231 | 1 1 1 0 0 1 1 1 | 232 | 0 0 0 1 0 1 1 1 |
| 233 | 1 0 0 1 0 1 1 1 | 234 | 0 1 0 1 0 1 1 1 |
| 235 | 1 1 0 1 0 1 1 1 | 236 | 0 0 1 1 0 1 1 1 |
| 237 | 1 0 1 1 0 1 1 1 | 238 | 0 1 1 1 0 1 1 1 |
| 239 | 1 1 1 1 0 1 1 1 | 240 | 0 0 0 0 1 1 1 1 |
| 241 | 1 0 0 0 1 1 1 1 | 242 | 0 1 0 0 1 1 1 1 |
| 243 | 1 1 0 0 1 1 1 1 | 244 | 0 0 1 0 1 1 1 1 |
| 245 | 1 0 1 0 1 1 1 1 | 246 | 1 0 1 0 1 1 1 1 |
| 247 | 1 1 1 0 1 1 1 1 | 248 | 0 0 0 1 1 1 1 1 |
| 249 | 1 0 0 1 1 1 1 1 | 250 | 0 1 0 1 1 1 1 1 |

|     |                   |  |     |                 |
|-----|-------------------|--|-----|-----------------|
| 251 | 1 1 0 0 1 1 1 1 1 |  | 252 | 0 0 1 1 1 1 1 1 |
| 253 | 1 0 1 1 1 1 1 1 1 |  | 254 | 0 1 1 1 1 1 1 1 |
| 255 | 1 1 1 1 1 1 1 1 1 |  |     |                 |

**Notice: Some protocols and address start from 0. Try  $\pm 1$  of address code when can't control.**

## APPENDIX II Shortcuts Key Chart

| Shortcut Key   | Function                                         |
|----------------|--------------------------------------------------|
| Set #71 preset | Proportional P/T OFF                             |
| Set #73 preset | 0S Park time OFF                                 |
| Set #74 preset | 60S Park time ON                                 |
| Set #75 preset | 120S Park time ON                                |
| Set #76 preset | Dome restart                                     |
| Set #77 preset | Restore Factory Setting                          |
| Set #78 preset | 360° scan and tour scan speed is automatic       |
| Set #79 preset | 360° scan and tour scan speed is high, 20°/sec   |
| Set #80 preset | 360° scan and tour scan speed is middle, 15°/sec |
| Set #81 preset | 360° scan and tour scan speed is low, 6°/sec     |
| Set #82 preset | Delete left/right limit                          |
| Set #84 preset | Record Pattern scan 1                            |
| Set #85 preset | Record Pattern scan 2                            |
| Set #86 preset | Record Pattern scan 3                            |
| Set #87 preset | Record Pattern scan 4                            |
| Set #88 preset | Set cruise 1                                     |
| Set #89 preset | Set cruise 2                                     |
| Set #90 preset | Set cruise 3                                     |
| Set #91 preset | Set cruise 4                                     |

|                 |                                                        |
|-----------------|--------------------------------------------------------|
| Set #94 preset  | Set color-to-black function                            |
| Set #95 preset  | Close main menu                                        |
| Set #96 preset  | Access main menu                                       |
| Set #97 preset  | Set 360°scan, the preset-dwell: 0S                     |
| Set #98 preset  | Set 360°scan, the preset-dwell: 5S                     |
| Set #99 preset  | Set 360°scan, the preset-dwell: 10S                    |
| Call #71 preset | Proportional P/T ON                                    |
| Call #82 preset | Start Cruise scan and switch the cruise scan direction |
| Call #83 preset | Delete all Presets                                     |
| Call #84 preset | Start Pattern 1                                        |
| Call #85 preset | Start Pattern 2                                        |
| Call #86 preset | Start Pattern 3                                        |
| Call #87 preset | Start Pattern 4                                        |
| Call #88 preset | Call cruise 1 (default number 1~16 preset)             |
| Call #89 preset | Call cruise 2 (default number 17~32 preset)            |
| Call #90 preset | Call cruise 3 (default number 35~48 preset)            |
| Call #91 preset | Call cruise 4 (default number 49~64 preset)            |
| Call #92 preset | Set left limit Position                                |
| Call #93 preset | Set right limit Position                               |
| Call #94 preset | Camera IR-CUT switch                                   |
| Call #95 preset | Open main menu                                         |
| Call #97 preset | Call all valid presets cruise                          |
| Call #98 preset | Call 360°scan                                          |
| Call #99 preset | Preset Error Correction                                |

## APPENDIX III Trouble Shooting

| Troubles                                                         | Reason                                                                                                                                                                                        | Solution                                                                                                                                                                                                             |
|------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| No action when power on                                          | <ol style="list-style-type: none"> <li>1. The power supply is not connected correctly.</li> <li>2. The fuse is broken.</li> </ol>                                                             | <ol style="list-style-type: none"> <li>1. Correct the connection.</li> <li>2. Check the power supply is connected, or confirms if the plug connects well.</li> <li>3. Replace the fuse.</li> </ol>                   |
| Self-testing and image are normal but the dome is out of control | <ol style="list-style-type: none"> <li>1. The dome DIP switch setting is incorrect.</li> <li>2. RS485 cable is disconnected or reversed.</li> <li>3. Incorrect RS485 cable wiring.</li> </ol> | <ol style="list-style-type: none"> <li>1. Reset the DIP Switch according to the DIP switch chart.</li> <li>2. Check 485 bus controls.</li> <li>3. Check the wiring.</li> <li>4. Check the control device.</li> </ol> |
| Some function is out of control                                  | <ol style="list-style-type: none"> <li>1. RS485 communication signal is not balance.</li> <li>2. Control protocol is not compatible.</li> </ol>                                               | <ol style="list-style-type: none"> <li>1. Connect 120Ω balance resistance.</li> <li>2. Reset protocol.</li> </ol>                                                                                                    |
| Unclear image                                                    | <ol style="list-style-type: none"> <li>1. Focus is in manual state.</li> <li>2. Extreme zoom magnification.</li> <li>3. Dome cover is dirty.</li> </ol>                                       | <ol style="list-style-type: none"> <li>1. Reset the focus mode to Auto.</li> <li>2. Downsize zoom proportion</li> <li>3. Clean the dome cover.</li> </ol>                                                            |
| No night vision                                                  | <ol style="list-style-type: none"> <li>1. Camera is in Color state.</li> <li>2. backlight on the top or back of the dome camera</li> </ol>                                                    | <ol style="list-style-type: none"> <li>1. Reset the day/night function to Auto.</li> <li>2. Remove the direct light source.</li> </ol>                                                                               |